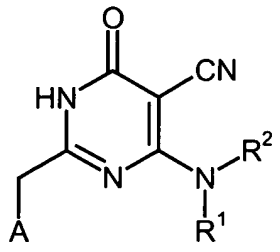
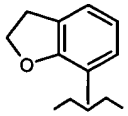
Claims

1. Compounds of the formula



(I),

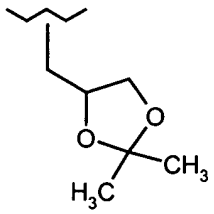
in which

A is phenyl, heteroaryl or a group of the formula 

where phenyl and heteroaryl are optionally substituted by up to 2 radicals independently of one another selected from the group of heteroaryl, halogen, C_1-C_6-alkyl, C_1-C_6-alkoxy, trifluoromethyl, trifluoromethoxy, benzyloxy and benzyl,

where C_1-C_6-alkyl is optionally substituted by a group of the formula $-NR^3R^4$ in which R^3 is C_1-C_6-alkyl and R^4 is hydrogen or C_1-C_6-alkoxy(C_1-C_6)alkyl, and

heteroaryl is optionally substituted by C_1-C_6-alkoxy,

R^1 is C_3-C_8-cycloalkyl, C_1-C_6-alkyl, C_1-C_6-alkoxy(C_1-C_6)alkyl, benzyl or a group of the formula 

where C_3-C_8-cycloalkyl is optionally substituted by hydroxy, C_1-C_6-alkyl or trifluoromethyl,

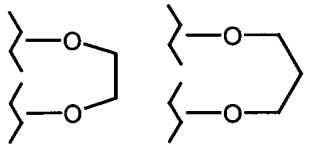
C_1-C_6-alkyl is optionally substituted by heteroaryl, C_3-C_8-cycloalkyl or hydroxy,

and benzyl is optionally substituted by C_1-C_6-alkoxy or halogen,

R^2 is hydrogen,

or

R^1 and R^2 together with the nitrogen atom to which they are bonded form a 5- to 6-membered heterocyclyl which is optionally substituted by up to 2 substituents independently of one another selected from the group of C_1-C_6-alkyl, hydroxy, cyano, oxo, heteroaryl, benzyl, formyl, C_1-C_6-alkylcarbonyl and one of the following groups

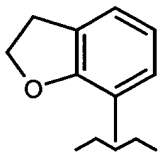


, which are linked via the two oxygen atoms to one of the carbon atoms in the heterocycle,

where C_1-C_6-alkyl is optionally substituted by hydroxy or heteroaryl,

and the salts, solvates and/or solvates of the salts thereof.

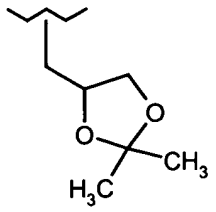
2. Compounds according to Claim 1, where

A is phenyl, heteroaryl or a group of the formula 

where phenyl and heteroaryl are optionally substituted by up to 2 radicals independently of one another selected from the group of heteroaryl, halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy, trifluoromethyl, trifluoromethoxy, benzyloxy and benzyl,

where C_1-C_4-alkyl is optionally substituted by a group of the formula $-NR^3R^4$ in which R^3 is C_1-C_4-alkyl and R^4 is hydrogen or C_1-C_4-alkoxy(C_1-C_4)alkyl, and

heteroaryl is optionally substituted by C_1-C_4-alkoxy,

R^1 is C_3-C_6-cycloalkyl, C_1-C_4-alkyl, C_1-C_4-alkoxy(C_1-C_4)alkyl, benzyl or a group of the formula  ,

where C_3-C_6-cycloalkyl is optionally substituted by hydroxy, C_1-C_4-alkyl or trifluoromethyl,

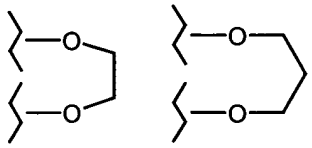
C_1-C_4-alkyl is optionally substituted by heteroaryl, C_3-C_6-cycloalkyl or hydroxy,

and benzyl is optionally substituted by C_1-C_4-alkoxy or halogen,

R^2 is hydrogen,

or

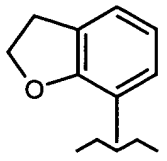
R^1 and R^2 together with the nitrogen atom to which they are bonded form a 5- to 6-membered heterocyclyl which is optionally substituted by up to 2 substituents independently of one another selected from the group of C_1-C_4-alkyl, hydroxy, cyano, oxo, heteroaryl, benzyl, formyl, C_1-C_4-alkylcarbonyl and one of the following groups

 , which are linked via the two oxygen atoms to one of the carbon atoms in the heterocycle,

where C_1-C_4-alkyl is optionally substituted by hydroxy or heteroaryl,

and the salts, solvates and/or solvates of the salts thereof.

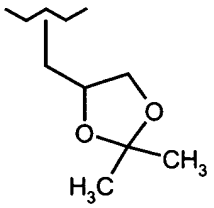
3. Compounds according to Claims 1 and 2, where

A is phenyl, thienyl or a group of the formula  ,

where phenyl and thienyl are optionally substituted by up to 2 radicals independently of one another selected from the group of pyridyl, fluorine, chlorine, bromine, C_1-C_4-alkyl, C_1-C_4-alkoxy, trifluoromethyl, trifluoromethoxy, benzyloxy and benzyl,

where C_1-C_4-alkyl is optionally substituted by a group of the formula $-NR^3R^4$ in which R^3 is C_1-C_4-alkyl and R^4 is hydrogen or C_1-C_4-alkoxy(C_1-C_4)alkyl, and

pyridyl is optionally substituted by C_1-C_4-alkoxy,

R^1 is C_3-C_6-cycloalkyl, C_1-C_4-alkyl, C_1-C_4-alkoxy(C_1-C_4)alkyl, benzyl or a group of the formula  ,

where C_3-C_6-cycloalkyl is optionally substituted by hydroxy, C_1-C_4-alkyl or trifluoromethyl,

C_1-C_4-alkyl is optionally substituted by pyridyl, C_3-C_6-cycloalkyl or hydroxy,

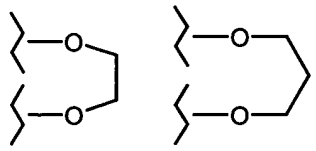
and benzyl is optionally substituted by C_1-C_4-alkoxy, fluorine, chlorine or bromine,

R^2 is hydrogen,

or

R^1 and R^2 together with the nitrogen atom to which they are bonded form a 5- to 6-membered heterocyclyl selected from the group of pyrrolidinyl, piperidinyl, piperazinyl and morpholinyl, which is optionally substituted by up to 2 substituents independently of one another selected from the

group of C_1-C_4-alkyl, hydroxy, cyano, oxo, heteroaryl, benzyl, formyl, C_1-C_4-alkylcarbonyl and one of the following groups

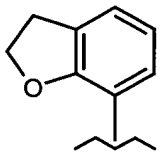


, which are linked via the two oxygen atoms to one of the carbon atoms in the heterocycle,

where C_1-C_4-alkyl is optionally substituted by hydroxy or pyridyl,

and the salts, solvates and/or solvates of the salts thereof.

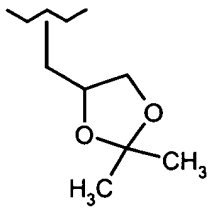
4. Compounds according to Claims 1, 2 and 3, where

A is phenyl, thienyl or a group of the formula 

where phenyl is optionally substituted by up to 2 radicals independently of one another selected from the group of pyridyl, fluorine, chlorine, methyl, methoxy, ethoxy, trifluoromethyl, trifluoromethoxy, benzyloxy and benzyl,

where methyl is optionally substituted by a group of the formula $-NR^3R^4$ in which R^3 is methyl and R^4 is hydrogen or 2-methoxyethyl, and

pyridyl is optionally substituted by methoxy,

R^1 is C_3-C_6-cycloalkyl, methyl, ethyl, propyl, 2-methoxyethyl, benzyl or a group of the formula  ,

where C_3-C_6-cycloalkyl is optionally substituted by hydroxy, methyl or trifluoromethyl,

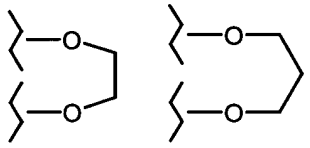
methyl, ethyl, propyl is optionally substituted by pyridyl, cyclopropyl or hydroxy,

and benzyl is optionally substituted by methoxy, ethoxy, fluorine or chlorine,

R^2 is hydrogen,

or

R^1 and R^2 together with the nitrogen atom to which they are bonded form a 5- to 6-membered heterocyclyl selected from the group of pyrrolidinyl, piperidinyl, piperazinyl and morpholinyl, which is optionally substituted by up to 2 substituents independently of one another selected from the group of methyl, ethyl, propyl, tert-butyl, hydroxy, cyano, oxo, pyridyl, benzyl, formyl, methylcarbonyl, ethylcarbonyl, propylcarbonyl and one of the following groups



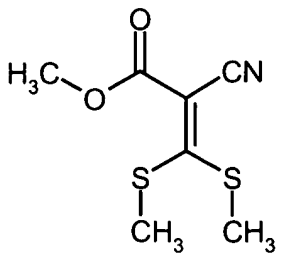
, which are linked via the two oxygen atoms to one of the carbon atoms in the heterocycle,

where methyl, ethyl and propyl are optionally substituted by hydroxy or pyridyl,

and the salts, solvates and/or solvates of the salts thereof.

5. Process for preparing compounds of the formula (I), characterized in that either

[A] a compound of the formula



(II)

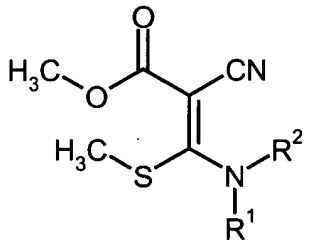
is initially converted with a compound of the formula

HNR^1R^2 (III),

in which

R^1 and R^2 have the abovementioned meanings,

at elevated temperature in an inert solvent or else in the absence of a solvent into a compound of the formula

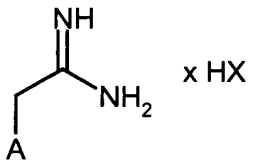


(IV)

in which

R^1 and R^2 have the abovementioned meanings,

and the latter is then reacted in an inert solvent in the presence of a base with a compound of the formula



x HX

(V)

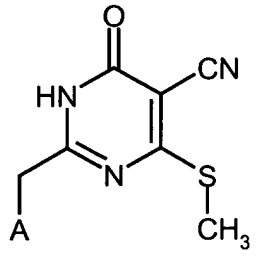
X = Cl, Br or I

in which

A has the abovementioned meanings,

or in a modified sequence of the reactants

[B] a compound of the formula (II) is initially converted with a compound of the formula (V) in an inert solvent in the presence of a base into a compound of the formula



(VI)

in which

A has the abovementioned meanings,

and the latter is then reacted at elevated temperature in an inert solvent or else in the absence of a solvent with a compound of the formula (III),

and the compounds of the formula (I) resulting in each case are reacted where appropriate with the appropriate (i) solvents and/or (ii) bases or acids to give their solvates, salts and/or solvates of the salts.

6. Compounds according to any of Claims 1 to 4 for the treatment and/or prophylaxis of diseases.

7. Medicament comprising at least one of the compounds according to any of Claims 1 to 4 and at least one pharmaceutically acceptable, essentially non-toxic carrier or excipient.

8. Use of the compounds according to any of Claims 1 to 4 for producing a medicament for the prophylaxis and/or treatment of impairments of perception, concentration, learning and/or memory.

9. Use according to Claim 8, where the impairment is a consequence of Alzheimer's disease.

10. Use of the compounds according to any of Claims 1 to 4 for producing a medicament for improving perception, concentration, learning and/or memory.

11. Method for controlling impairments of perception, concentration, learning and/or memory in humans or animals by administering an effective amount of the compounds from Claims 1 to 4.

12. Method according to Claim 11, where the impairment is a consequence of Alzheimer's disease.